

Remarks:

Reconsideration of the application is requested.

Claims 1, 4, 6, 8-10, 12-13, 15-16 and 18-19 remain in the application. Claims 8-9, 12, 15 and 18 have been amended.

Claims 2-3, 5, 7, 11, 14, 17 and 20 have been cancelled.

In item 1 on page 2 of the above-identified Office action, claims 2, 3, 8 and 9 have been objected to because of informalities. Claims 2 and 3 have been cancelled.

Appropriate correction to claims 8 and 9 has been made.

In item 3 on page 2 of the above-identified Office action, claims 1, 4, 6, 10, 13, 16 and 19 have been rejected as being indefinite under 35 U.S.C. § 112 second paragraph.

More specifically, the Examiner has stated that the limitation "having an aluminum content in percent by weight of between 6 and 12% multiplied by 0.02 mm divided by said thickness of said sheet-metal layers" recited in claims 1 and 19 is not clear as to what is the actual weight percentage of the aluminum content in the sheet layers.

Applicant respectfully disagrees. Claims 1 and 19 recite that the aluminum content of the sheet metal layers used to form the honeycomb catalyst carrier body is between 6 to 12 percent

multiplied by 0.02 millimeters divided by the thickness of the sheet metal layers. This teaches one skilled in the art precisely how large the aluminum content of the sheet metal layer has to be. The aluminum content is dependent on the thickness of the layers being used. This is advantageous for thick sheet metal layers of more than 0.08 millimeters thickness. The advantage of such a honeycomb body is that the sheet metal layers used for the production of a honeycomb body can be produced at particularly low costs (see page 3, line 25 to page 4, line 4 of the specification of the instant application).

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph. Should the Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved.

In item 6 on pages 3-4 of the above-mentioned Office action, claims 1-15, 19 and 20 have been rejected as being unpatentable over Sheller (US Pat. No. 5,422,083) in view of Aggen et al. (US Pat. No. 4,414,023) under 35 U.S.C. § 103(a).

In item 7 on pages 4-5 of the above-mentioned Office action, claims 16-18 have been rejected as being unpatentable over Sheller in view of Aggen et al. and further in view of Sato et

al. (European Publication No. 0 497 992 A1) under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claims 1 and 19 call for, inter alia:

layered or wound sheet-metal layers at least partially structured to form passages through which exhaust gas can flow, said sheet-metal layers formed of a stainless steel, having a thickness of more than 0.08 mm and having an aluminum content in percent by weight of between 6 and 12% multiplied by 0.02 mm divided by said thickness of said sheet-metal layers. (Emphasis added by Applicant).

Claim 8 calls for, inter alia:

an exhaust gas-cleaning system having a honeycomb body acting as a catalyst carrier body, said honeycomb body including layered or wound sheet-metal layers at least partially structured to form passages through which exhaust gas can flow, said sheet-metal layers formed of a stainless steel containing 15 - 25% (percent by weight) of chromium, 0.02 to 0.2% of a rare earth metal and having between 1 and 4.5% of aluminum. (Emphasis added by Applicant).

Sheller discloses a converter body which is made of two types of thin metal strips (see column 4, lines 36-51). The corrugated metal strips have a thickness of 0.002 inches and

are made of ferritic stainless steel. The honeycomb body is built up from corrugated and flat sheet metal layers as can be seen from Fig. 2. The flat thin metal strips have a thickness of about 0.001 inches to about 0.009 inches. The upper limit corresponds to a thickness of 0.2286 millimeters in metric units. These flat thin metal strips may be made of Haynes 214 alloy or Haynes 230 alloy (see column 4, lines 39-41). These two alloys are described in column 3, lines 2-6 (Haynes 230) and column 2, lines 58-67 (Haynes 214). The Examiner refers to Haynes 214 alloy which contains 75% nickel, 16% chromium, 4.5% aluminum, 3% iron, optionally trace amounts of one or more rare earth metals, except yttrium, 0.05% carbon, and trace amounts of steel making impurities. This composition is used for the manufacture of metal strips having a thickness of 0.001 inch to about 0.009 inch. This means that for all thicknesses of thin metal strips disclosed by Sheller the composition is the same.

Therefore, Sheller does not teach the change of aluminum content depending on the thickness of the sheet metal layer, as recited in claims 1 and 19 of the instant application.

Furthermore, Sheller contains no suggestion or hint to use a composition of alloy which is dependent on the thickness of the sheet metal layer. Therefore, there is no incentive for one skilled in the art to combine the teaching of Sheller with

another document from the prior art, such as Aggen et al., to reach the teaching of claims 1 and 19 of the instant application. In addition, Aggen et al. do not teach the dependence of the aluminum content on the thickness of the layers as well.

Regarding claim 8 of the instant application, Sheller does not mention the use of the system of honeycomb bodies for the cleaning of exhaust gas of a diesel engine in a diesel vehicle. Neither Sheller nor Aggen et al. are concerned with the special conditions in the exhaust system of a diesel engine. In the exhaust system of a diesel engine, the lower temperatures of the exhaust gas allow lowering of the aluminum content of the steel being used, which has an impact on the resistance to high-temperature corrosion of the material (see page 8, lines 8-16 of the specification of the instant application). Since Sheller does not mention anywhere the use of the honeycomb bodies in the exhaust system of a diesel vehicle, Sheller does not contain any hint that it is advantageous to lower the aluminum content of the steel being used. One skilled in the art would therefore not be able to reach the teaching of claim 8 of the instant application by combining the teaching of Sheller with the teaching of Aggen et al.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1, 8 and 19. Claims 1, 8 and 19 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claims 1 or 8, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1, 4, 6, 8-10, 12-13, 15-16 and 18-19 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

Please charge any fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

For Applicants

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Marked-Up Version of the Amended Claims:

Claim 8(amended). A [honeycomb body acting as a catalyst carrier body for exhaust gas-cleaning systems of] diesel [vehicles] vehicle, comprising:

an exhaust gas-cleaning system having a honeycomb body acting as a catalyst carrier body, said honeycomb body including
layered or wound sheet-metal layers at least partially structured to form passages through which exhaust gas can flow, said sheet-metal layers formed of a stainless steel containing 15 - 25% (percent by weight) of chromium, 0.02 to 0.2% of a rare [earths] earth metal and having between 1 and 4.5% of aluminum.

Claim 9(amended). The [honeycomb body] diesel vehicle according to claim 8, wherein said rare [earths are] earth metal is at least one element selected from the group consisting of yttrium, lanthanum and cerium.

Claim 12(amended). The [honeycomb body] diesel vehicle according to claim 8, wherein said aluminum has a content of 2 to 4%.

Claim 15 (amended). The [honeycomb body] diesel vehicle according to claim 8, wherein said sheet-metal layers are rolled.

Claim 18 (amended). The [honeycomb body] diesel vehicle according to claim 8, wherein said sheet-metal layers are rolled and removed from a production process for producing hot-dip aluminized material before an aluminum content is raised.